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ABSTRACT

This manual offers guidelines for vocational educators who want to develop and conduct short-term training programs for business and industry. The guide is organized in six chapters. Chapter 1 reviews some of the opportunities in short-term training, discusses commonly applied principles of competency-based training, and suggests a practical model for developing short-term training. The next five chapters are based on the five steps of the model: determining training needs, specifying training objectives, developing a performance evaluation system, developing the training plan, and developing performance guides. Examples and checklists are provided throughout the chapters. Two appendixes contain a performance guide for short-term training development and a four-part outline for conducting short-term interactive training. (KC)

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DEVELOPING SHORT-TERM TRAINING PROGRAMS

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FOREWARD

Numerous opportunities exist for vocational educators who can develop and conduct short-term training programs for their local business and industry. This publication was written to offer some guidelines for those who wish to pursue those opportunities. Administrators who wish further information on the subject should contact Dr. Ernest Shubird, 242-9108.

This publication is intentionally brief; the author has tried to condense the chapters into concise segments of practical information so they can be used by busy vocational administrators of adult vocational programs.

Dr. Ernest Shubird, Coordinator, Adult Vocational Programs, wrote this publication with the editorial and manuscript assistance of Mrs. Carol Laughlin, Vocational Education Specialist, and the technical assistance of Mr. Jim Nance, Administrator of Adult Vocational Programs, Huntsville City Center for Technology.

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Chapter 1
INTRODUCTION

This chapter reviews some of the opportunities in short-term training, discusses some commonly applied principles of competency-based training, and suggests a practical model for developing short-term training.

Opportunities in Short-Term Training

Although training is a multi-billion dollar industry, only the very largest firms can afford staffs of professionals to design and conduct the training they need. Consequently, most of the others must rely on outsiders to provide their training. Some bring in outside consultants; others rely on local educational agencies, both public and private. The following incident (in which actual names have been changed) is an example of how training can be provided by a public vocational school to the benefit of both the business and the school.

"We can develop the course and start a class in about one week."

Mr. Schultz is Coordinator of Adult Vocational Education at the vocational school located in the heart of a large industrial city. Mr. Rivers is general manager of a new specialty machining company which hires about 200 people. His firm has recently signed a lucrative contract only to discover that none of his machinists have had any training in the precision and tolerancing required in producing the product. His only recourse, he decides, is to send 12 machinists to an advanced technical course 600 miles away at a cost of $24,000 for travel, per diem and tuition. Approached by Mr. Schultz who is doing a needs assessment, he mentions his training problem. "Let me do it," suggested Schultz. "I have an instructor who has had training and experience in that kind of precision and tolerancing. We can develop the course and start a class in about one week. If the course is 40 hours as you said, we can do it for you for $4.00 per instructional hour per person or a total of $1,930.00."

"I can't believe that," said Rivers. "How can you do it?"

"Well," replied Schultz, " we have the expertise in developing such training, and we either have qualified teachers or we know where to find them. What's more, we'll give you a certificate of proficiency for each person who finishes the course."

This example, based on a true incident, illustrates how education and industry, when brought together in a working agreement, can improve human resources and enhance the economy. There are thousands of firms, large to small, which have needs for short-term training in order to maintain their operations. For example, a local physicians group has installed computers and must have 15 people trained in how to use them as soon as possible. One of the local metal shops has installed robot welders and must have 20 people trained in how to program them. The local hospital needs inservice training for its nurses in a new type of respirator. A local building contractor must have 14 people trained to read

blueprints. Such examples go on and on, not to mention those numerous individuals who would enroll in such courses for future job benefits were such courses offered.

In those communities where training needs exist, there are likely to be vocational schools where excellent training facilities are available, where people have expertise in developing such training courses and where qualified teachers are available. But unless schools and businesses can be brought together, many training needs will often go unmet. This manual will attempt to explore some ways in which those needs can be met to the mutual benefit of local business and industry and the local vocational schools.

Competency-Based Training

It is convenient to begin the treatment of short-term training development with a review of the principles and features of competency-based training. This is true because the heart of short-term training is the competency-based method.

Training developed for business and industry ... must be based on what the job demands ...

• Training is based on actual job requirements.

According to Francis Bacon, a group of learned scholars met in the Middle Ages to determine the number of teeth in the mouth of a horse. After consulting all the ancient chronicles and books available and debating the question for 13 days, the answer still eluded them. On the 14th day a young and timid scholar suggested meekly that the answer might be obtained by looking in a horse's mouth. But the learned group condemned him for such an unorthodox approach and decreed that the number of teeth in a horse's mouth be henceforth an everlasting mystery. Hence, the old saying, "Get it from the horse's mouth."

Training developed for business and industry must come from the "horse's mouth;" that is, it must be based on what the job demands—what people actually do when they go to work. This means in application that before any training is developed, the job is analyzed and broken down into its competencies and tasks which then become the basis for developing the training. Otherwise, the training will be based on someone's preferences and opinions.

• Training is conducted in a job or job-like environment.

In order for the training to be effective—in order for it to be competency-based, in fact—it must be conducted in a place that is like the actual job. For example, trainees undergoing instruction in computer application must be in a classroom, office or lab in which computers are available. Persons taking a course in CAD must have computers with the appropriate CAD software. Auto mechanics updating their skills must do so in a lab or shop in which tools and automobiles are available. If the actual job place is not available, then the equipment and materials must be set up in a simulated environment such as a lab or classroom. Without the job or job-like environment, it is very difficult and sometimes impossible to transfer learning to the job.

• Competency-based training employs hands-on application.

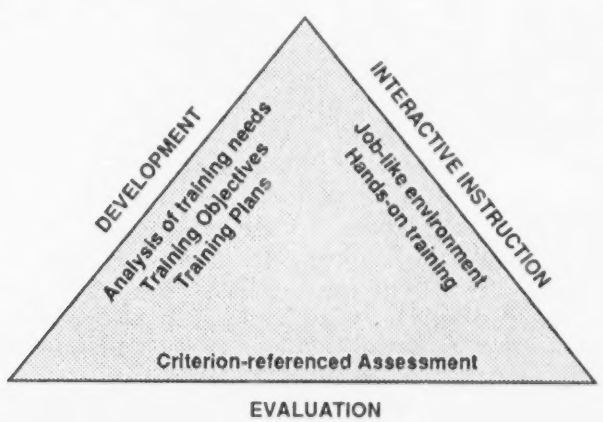
It is highly unlikely that a person could learn to ride a bicycle merely by reading about how to ride or by hearing another person explain how to do it, although some important information could be learned. In most cases, it would be necessary to observe another person riding a bicycle and then practice until the pedaling and balancing techniques work together to keep the bicycle moving in an upright position. Students learning word processing skills don't just read the manual for their system; they interact with their materials and equipment to practice the required operation in order to enter, copy, save, edit, and merge. Since competency-based training is rapidly becoming the industry standard, most firms contracting for training will expect and demand hands-on application as an indispensable element of training. Time and money are too valuable to invest in anything less.

•Competency-based training employs criterion-referenced evaluation.

Most firms contracting for training will expect and demand hands-on application as an indispensable element of training.

Once competency-based training—if it is truly competency-based—has been conducted, its effectiveness can be assessed by having the trainees perform those tasks included in the training. If, for example, a trainee was taught how to merge files with a particular word processing program, effectiveness could be claimed like this: Before the training, the trainee could not merge files; after the training he or she could. In that case, the training was effective. Criterion-referenced evaluation has become so widely accepted in business and industry that it is not unusual for a contract for the providing of training to require a guarantee that a specified high percentage of the trainees will, upon completion, be able to perform a specific high percentage of the tasks or skills. A contract, for example, might specify that "...Each trainee, upon completion of the program, will be able to enter draft copy at the rate of 90 words per minute with no more than 2 errors per page at first print-out." To determine whether this requirement has been met, the evaluator would assign the trainee to a word processor, give copy to be entered, time the rate of entry and proof the printed copy for errors.

In summary, competency-based training can be represented by a triangle as follows.



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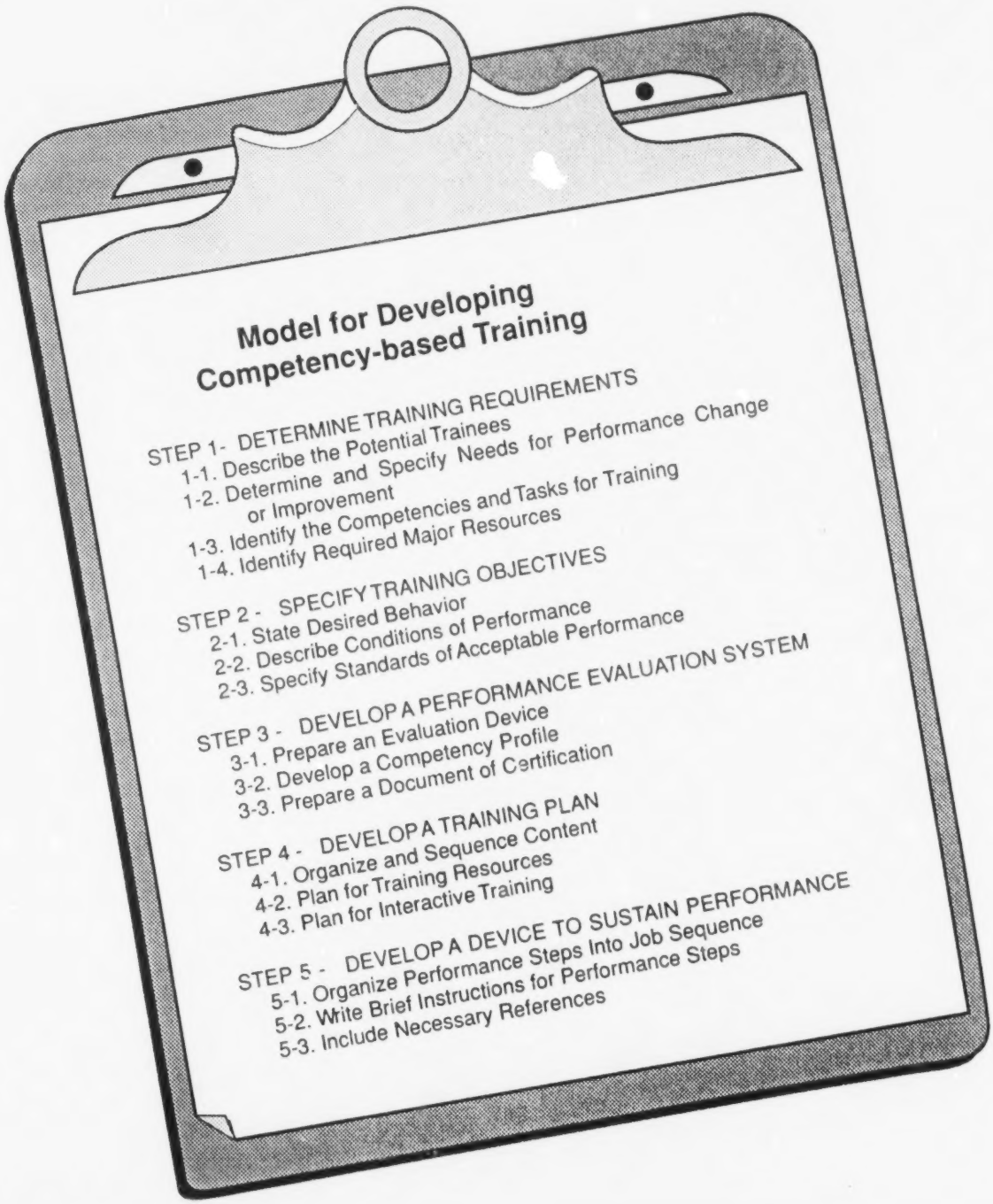
A Model for Development of Competency-Based Training

Although there are several models for developing competency-based training, the following is generally accepted as a practical procedure. The rest of this publication will be based on the steps of the model.


Model for Developing
Competency-based Training
STEP 1- DETERMINE TRAINING REQUIREMENTS
1-1. Describe the Potential Trainees
1-2. Determine and Specify Needs for Performance Change or Improvement
1-3. Identify the Competencies and Tasks for Training
1-4. Identify Required Major Resources
STEP 2 - SPECIFY TRAINING OBJECTIVES
2-1. State Desired Behavior
2-2. Describe Conditions of Performance
2-3. Specify Standards of Acceptable Performance
STEP 3 - DEVELOP A PERFORMANCE EVALUATION SYSTEM
3-1. Prepare an Evaluation Device
3-2. Develop a Competency Profile
3-3. Prepare a Document of Certification
STEP 4 - DEVELOP A TRAINING PLAN
4-1. Organize and Sequence Content
4-2. Plan for Training Resources
4-3. Plan for Interactive Training
STEP 5 - DEVELOP A DEVICE TO SUSTAIN PERFORMANCE
5-1. Organize Performance Steps Into Job Sequence
5-2. Write Brief Instructions for Performance Steps
5-3. Include Necessary References

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Chapter 2
DETERMINING TRAINING NEEDS

In determining the training needs upon which future training will be based, it is necessary to:

- Describe the potential trainees in terms of their background and capabilities,
- Determine specific needs for performance change or improvement,
- Identify the competencies and tasks to be included in the training, and
- Specify the major training resources that will be required.

Describing Potential Trainees

In order to design effective customized training, it is necessary to know something about the persons for whom the training is to be designed. Important questions to be answered include the following:

- What jobs or tasks are the trainees now performing?
- What is their experience - average experience per worker, range of experience?
- What is the average age? Age range?
- What are the educational levels?
- What skills and knowledges will they bring to a new job?

Answers to these questions will provide valuable information to the designer of the training who will thus be able better to tailor the training to fit the trainees as much as possible.

The primary purpose of all training is to improve or change the performance of the trainees.

Determining and Specifying Needs for Performanace Change or Improvement

The primary purpose of all training is to improve or change the performance of the trainees. Some of the common reasons which necessitate performance improvement or change are:

- The workers might have skills deficiencies for such reasons as newness on the job, recent transfers or changing production techniques.
- There might have been changes in tools or equipment. For example, electronic typewriters have been replaced with word processors, robots are being installed in the welding shop, or a new telephone system is being employed.
- New products or services are being added. For example, a copy service adds desktop publishing to its service.

Identifying the Competencies and Tasks for Training

Once the need for training has been specified, it is necessary, for further training development, to describe the proposed training in terms of the competencies and tasks for which training is to be developed. A

competency is a broad area of work such as "Using XYZ Word Processing Program," while tasks are measurable components of the competency such as "Enter copy, save copy," etc. In order to qualify as a task, a statement should be measurable and observable, have a definite beginning and end and be capable of evaluation. Consider these incorrect and correct examples:

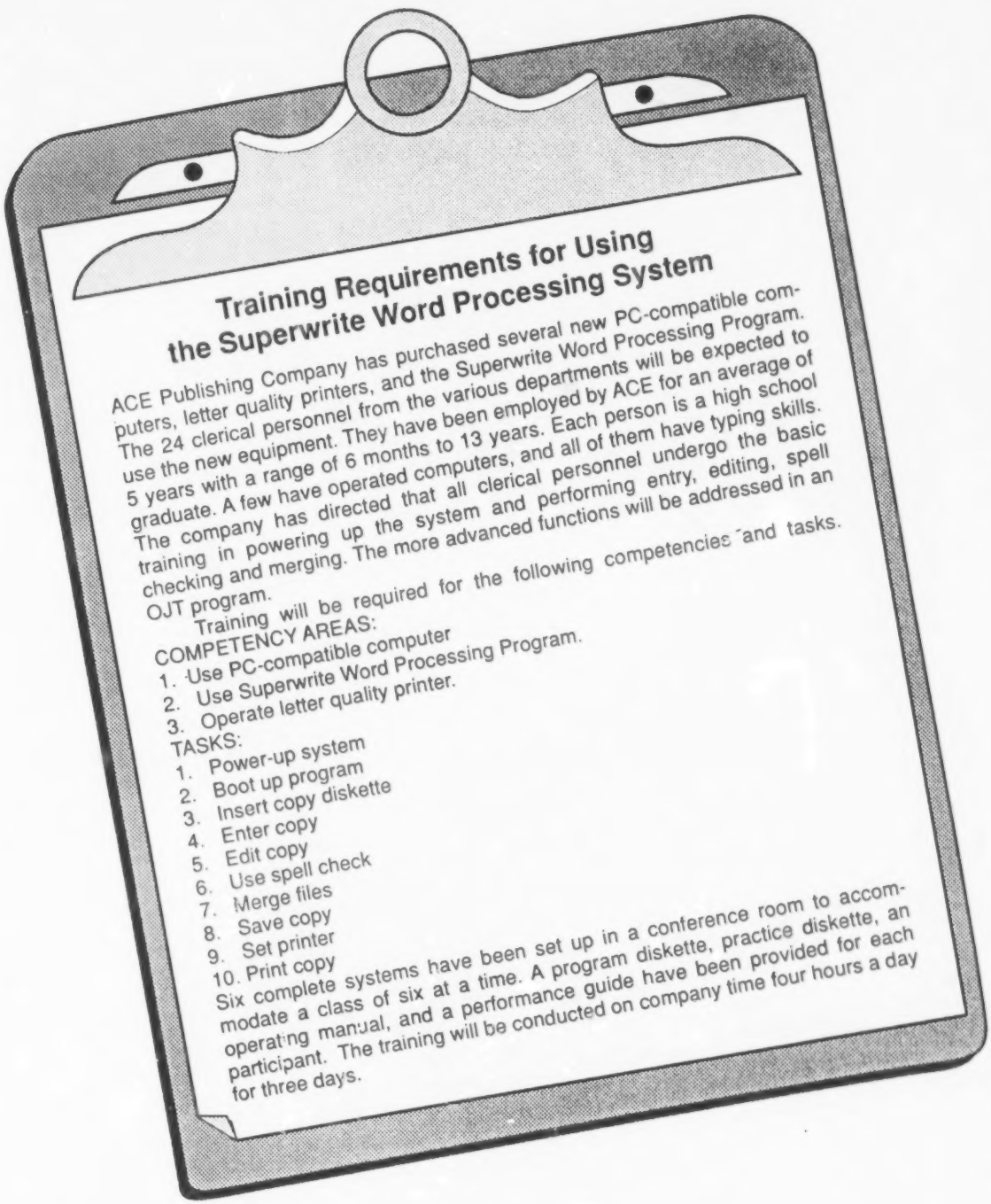
Incorrect	Correct
Use screwdriver.	Assemble central panel.
Find errors.	Troubleshoot to isolate malfunction.
Fix defective part.	Remove & replace front section of—.

Identifying Required Major Training Resources

It was established in Chapter 1 that competency-based training must be conducted in a job or job-like environment and that hands-on application must be employed. This will require facilities in which to conduct the training and the tools, equipment and materials with which the student will interact. If major items or instructional equipment must be obtained (such as chalk boards, overhead projectors, VCRs, etc.) they should also be identified at this point. Finally, since time is a resource, it must also be estimated.

Hands-on application will require facilities in which to conduct the training.

On the next page is a sample description of training needs.



Training Requirements for Using the Superwrite Word Processing System

ACE Publishing Company has purchased several new PC-compatible computers, letter quality printers, and the Superwrite Word Processing Program. The 24 clerical personnel from the various departments will be expected to use the new equipment. They have been employed by ACE for an average of 5 years with a range of 6 months to 13 years. Each person is a high school graduate. A few have operated computers, and all of them have typing skills. The company has directed that all clerical personnel undergo the basic training in powering up the system and performing entry, editing, spell checking and merging. The more advanced functions will be addressed in an OJT program.

Training will be required for the following competencies and tasks.

COMPETENCY AREAS:

1. Use PC-compatible computer
2. Use Superwrite Word Processing Program.
3. Operate letter quality printer.

TASKS:

1. Power-up system
2. Boot up program
3. Insert copy diskette
4. Enter copy
5. Edit copy
6. Use spell check
7. Merge files
8. Save copy
9. Set printer
10. Print copy

Six complete systems have been set up in a conference room to accommodate a class of six at a time. A program diskette, practice diskette, an operating manual, and a performance guide have been provided for each participant. The training will be conducted on company time four hours a day for three days.

Chapter 3
SPECIFYING TRAINING OBJECTIVES

Suppose the officials of ACE Publishing Company told their person responsible for planning and conducting training, "Give them all they need to know about the word processors so they can use them. Be sure they can do what they're supposed to do." This would leave some important questions unanswered:

- Exactly what are they supposed to do as a result of the course?
- Under what constraints, limitations or support will they be expected to perform?
- How can their performance be assessed or evaluated?

These questions must be answered by the three components of a behavioral objective.

Stating Desired Behavior

An objective must state behavior in overt terms.

The basic unit for which behavioral objectives are written is the task. From Chapter 2, you will recall that a task is stated with an action verb. If a task is to have only one objective, the behavior of the objective will be the same as that of the task. Sometimes, however, a task might require two objectives as in "Remove and replace—components." But whether one, two or more, an objective must state behavior in overt terms, with action verbs, and behavior which can be observed.

Consider these examples that do not state overt behaviors.

know	**understand**	**become cognizant of**
learn	**appreciate**	**become familiar with**
recognize	**comprehend**	**make aware of**

Now consider some examples of words which do state overt behaviors.

write	**construct**	**operate**
calculate	**test**	**draw**
type	**assemble**	**check**
troubleshoot	**cut**	**saw**
drill	**frame**	**measure**

Stating Conditions of Performance

A good objective must also state or imply the conditions under which the behavior is expected to occur; it must also describe the environment and set the limits of performance. Some examples of conditions required in performance are:

Degree of supervision, if required
Job references to be available

Performance aids
Tools to be provided
Equipment to be used
Job environment

Sometimes, some conditions are understood and need not be written out. For example, in:

"Provided electronic typewriter, prepare a draft of two pages in five minutes with no more than three errors"
it is understood that typing paper will be provided.

Specifying Standards of Acceptable Performance

To answer the question, How will one know whether the training is effective?, a good objective must contain a standard for measuring or evaluating the performance. Some common examples are:

Degree of accuracy— *"...90%correct."*
Time limits — *"...within five minutes."*
Percentage of errors — *"...no more than 5% errors."*
Degree of supervision— *"Evaluator may make up to three corrections; trainees may make up to three requests for assistance."*
Check list — *"...in accordance with a performance checklist."*
Operation of equipment— *"...engine must start."*

A good objective must contain a standard for measuring or evaluating the performance.

Blanket Objectives

Sometimes in short-term training, the objectives can be covered under one set of conditions and one standard. That saves time and avoids repetition. Here is an example:

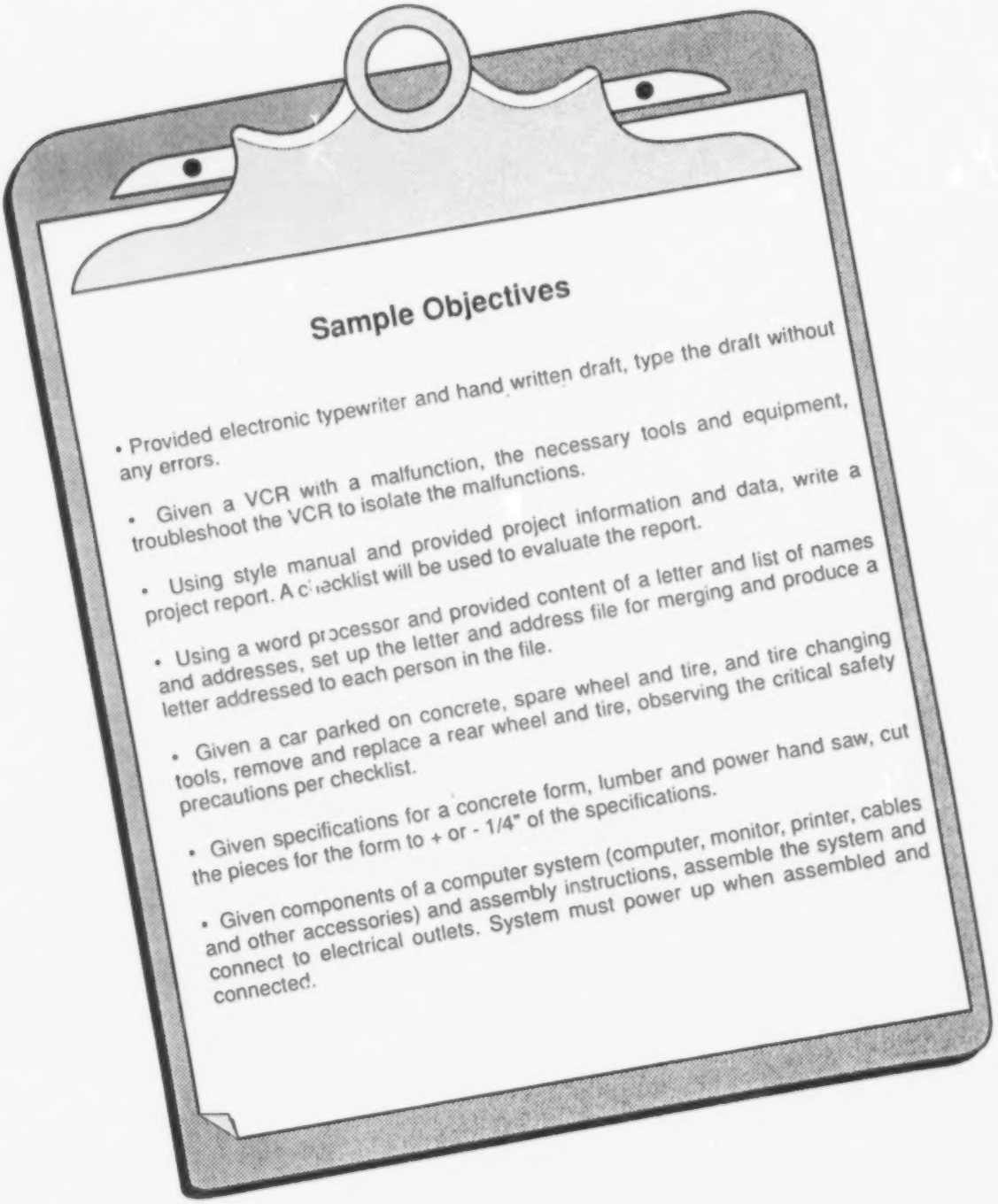
Provided word processor, software, performance guide and previously saved copy:

1. Do spell check on previously entered copy.
2. Edit previously entered copy.
3. Merge files.
4. Set up and use address file.
5. Justify right margins.
6. Print out final copy.

The above operations will be evaluated by a checklist.

In preparing your own objectives for short-term training, you might do well to consider using this format for your objectives whenever it accurately specifies your intended outcomes.

Some examples of objectives are listed on page 14.



Sample Objectives

- Provided electronic typewriter and hand written draft, type the draft without any errors.
- Given a VCR with a malfunction, the necessary tools and equipment, troubleshoot the VCR to isolate the malfunctions.
- Using style manual and provided project information and data, write a project report. A checklist will be used to evaluate the report.
- Using a word processor and provided content of a letter and list of names and addresses, set up the letter and address file for merging and produce a letter addressed to each person in the file.
- Given a car parked on concrete, spare wheel and tire, and tire changing tools, remove and replace a rear wheel and tire, observing the critical safety precautions per checklist.
- Given specifications for a concrete form, lumber and power hand saw, cut the pieces for the form to + or - 1/4" of the specifications.
- Given components of a computer system (computer, monitor, printer, cables and other accessories) and assembly instructions, assemble the system and connect to electrical outlets. System must power up when assembled and connected.

Chapter 4
DEVELOPING A PERFORMANCE EVALUATION SYSTEM

Since competency-based training places so much emphasis on behavior changed as a result of the training, each course must have a criterion-referenced evaluation system. Usually this includes the performance rating system, a competency profile, and a document to certify completion.

Preparing an Evaluation Device

Basically there are two types of rating methods, product and process:

Product Evaluation

When the objective describes a product its standard will usually specify what is expected in the finished product. Some common types of those standards are content of the finished product, accuracy of the content, completion time, degree of supervision, and function of the finished product.

Its standard will usually specify what is expected in the finished product.

- **Content of Finished Product.**

This type of evaluation is often used to measure a written product, although it can apply to other products. Consider this example:

Product: Provided results of a task analysis, access to job information and a subject matter specialist, write an objective to include a measurable statement of behavior, conditions required for performance, and the standard of acceptable performance.

Evaluation:

1. Behavior is stated with action verb in observable measurable terms.
   Yes _____ No _____
2. Conditions specify what is normally required for performance.
   Yes _____ No _____
3. Standard of acceptable performance is specified.
   Yes _____ No _____

- **Accuracy of Content.**

Certain types of finished products can be evaluated on their accuracy as in this example:

Objective: Provided an electronic typewriter and edited typewritten draft of about 1,000 words, type a final draft with no more than three errors.

Evaluation: Number of Errors _____

Met Objective: Yes _____ No _____

- **Completion Time.**

Sometimes the most important criterion for evaluation of performance is the time it takes the trainee to complete a given task. Consider this example:

Objective: **Provided an electronic typewriter and hand written draft of about 1,000 words, type a draft in no more than 20 minutes.**

- **Degree of Supervision or Assistance.**

Since a newly trained worker is often required to work under supervision until desired proficiency is reached, entry level objectives are sometimes evaluated in terms of the supervision or assistance required during performance for evaluation. For example:

Objective: **Given specifications for a concrete form, lumber, hammer, nails and power hand saw, construct the form to specifications. Rater may make up to three corrections; ratee may ask no more than two questions.**
Evaluation: Number of corrections made _____
Number of questions asked _____
Met objective: Yes _____ No _____

The process or act of completion itself must be evaluated.

- **Function of Finished Product.**

On some occasions, when a task has been performed resulting in a finished product, something must work. This is an example of such a standard for evaluation.

Objective: Given components of a computer system (computer, monitor, printer, cables), assembly instructions, and power source, assemble the system and connect to electrical outlets. System must power up when assembled and connected.
Evaluation: Powered up when turned on
Yes _____ No _____

Process Evaluation

Since many types of objectives describe a process, the process or act of completion itself must be evaluated. Basically, a process may be rated on the completion of the performance steps or the satisfactory completion of certain critical elements. NOTE: Criticality usually refers to the consequences of inadequate performance: what could happen to endanger personnel, to damage equipment, or cause excessive loss. Both performance steps and critical elements may be evaluated with a checklist.

- **Completion of Performance Steps**

Sometimes performance steps of one objective may be evaluated with a checklist; at other times several objectives may be included on the same check list, especially when a final performance test is given at end of course. Here is an example of a checklist for the performance steps of one objective.

Objective: Given a word processing system, program diskette, and diskette for copy, prepare the system for the entry of copy. Must satisfactorily complete all steps on a checklist.

Evaluation: Preparing Word Processing System Operations:
Acceptable _____ Not Acceptable _____

1. Powered-up computer
2. Inserted and secured diskette
3. Booted-up program diskette
4. Removed program diskette
5. Inserted and secured diskette for copy

For an example of a checklist for several objectives, see the example at the end of the chapter.

- **Satisfactory Performance of Critical Elements.**

When, in the performance of a task, there is the possibility of harm to personnel or damage to the equipment or environment, then the critical elements must be used as criteria for evaluation as in this example.

When there is the possibility of harm, then the critical elements must be used as criteria.

Objective: Given a car parked on concrete, spare wheel with tire, and tire changing tools, remove and replace a rear wheel and tire, observing all critical safety precautions per checklist.

Evaluation: Changing a Tire–Critical Safety
Acceptable _____ Not Acceptable_____

1. Transmission in PARK
2. Handbrake ON
3. Flashers ON
4. Lugs tightened

Developing a Competency Profile

Sometimes called a training record, the competency profile is a documentation form, sheet or folder prepared on each student to document progress and to provide the basis for awarding the certificate of completion. Prepared for each trainee, it should include each task included in the training, date proficiency was achieved, and initials or signature of the trainer. A sample is included at the end of the chapter.

Preparing a Document of Certification

This document, to be issued upon satisfactory completion of the training, is issued after the trainee has successfully completed all objectives as documented on the competency profile. A sample is included at the end of the chapter.

SAMPLE EVALUATION DEVICE USING THE SUPERWRITE WORD PROCESSING SYSTEM PERFORMANCE CHECKLIST

Standard: At least 9 of the 10 tasks must be rated as acceptable.

Trainee: _____ Date: _____ Trainer: _____

Tasks		Acceptable	Not Acceptable
1.	Powered-up system.	_____	_____
2.	Booted up program.	_____	_____
3.	Inserted copy diskette.	_____	_____
4.	Entered copy.	_____	_____
5.	Edited copy.	_____	_____
6.	Used spell checker.	_____	_____
7.	Merged files.	_____	_____
8.	Saved copy.	_____	_____
9.	Set printer for pitch, margin, and paper feeding.	_____	_____
10.	Printed copy.	_____	_____

Met objectives: Yes _____ No _____

SAMPLE COMPETENCY PROFILE USING THE SUPERWRITE WORD PROCESSING SYSTEM

School: _____ Company: _____

Trainee: _____ Trainer: _____

Tasks	Date Completed	Signature
1. Power up system.	_____	_____
2. Boot up program.	_____	_____
3. Insert copy diskette.	_____	_____
4. Enter copy.	_____	_____
5. Edit copy.	_____	_____
6. Use spelling checker.	_____	_____
7. Merge files.	_____	_____
8. Save copy.	_____	_____
9. Set printer.	_____	_____
10. Print copy.	_____	_____

CERTIFICATE OF COMPLETION
ALABAMA STATE DEPARTMENT OF EDUCATION
Division of Vocational Education Services

Adult Vocational Education
NAME OF SCHOOL SYSTEM

This is to certify that _____ has completed the _____ hours of training in _____ and has met all performance objectives as attested by the records of evaluation.

_____ Signature of Local Vocational Director

_____ Signature of Local Superintendent

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Chapter 5
DEVELOPING THE TRAINING PLAN

When the first three steps of the model have been completed, the next one is to develop the plan for training. This includes organizing and sequencing the content, planning for the resources, and developing the guide for interactive training.

The next step is to develop the plan for training.

Organizing and Sequencing the Content

There are some common principles that apply to organizing and sequencing content.

• **Sequence the large elements first; that is, sequence the major competency areas.** For example:

Operating Computer
Using Word Processor
Operating Printer

The usual criterion in making this sequence is what must be learned first.

• **Within each major competency, sequence the tasks.** Certain types of sequencing might apply:

- Most of the time the job sequence applies; that is, the order in which it is done on the job.
- When the job order is not critical, sequence from the simple to complex, known to unknown, or easy to difficult.

• **Sequence the steps in each task in the same order as performed on the job.**

Planning for Training Resources

Before you actually begin to plan for the training, you must plan for the resources that will be needed. These include the equipment, materials, instructional aids, and other items required in the actual training without the proper resources, effective training cannot be conducted.

Planning for Interactive Training

The training itself should have certain components: an orientation to the course and interactive instruction elements for each task.

ORIENTATION:

An orientation is important because it provides:

- Introduction of trainer,
- Introduction of trainee,
- Purpose and overview of the program, and
- Rules and regulations.

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Interactive Instruction Elements

The training for each task should include:

Introduction

This important element should include:

- A transition, if necessary,
- Motivational statement about the task to be learned, and
- Explanation of objective and how it will be achieved.

Explanation/Demonstration

The task is explained and demonstrated, using the necessary instructional aids.

Application/Performance

In this phase, trainees are directed to practice what has been explained and demonstrated, using any performance aids. Practice should give each trainee ample opportunity to develop proficiency.

Evaluation/Reinforcement

This should include a positive reinforcement of the performance, correction of any errors, and a summary of what has been achieved. The following is an extract of a training plan to illustrate these elements.

SAMPLE TRAINING PLAN
USING THE SUPERWRITE WORD PROCESSOR

OBJECTIVES/OUTCOMES

Provided PC-compatible computers, letter quality printers, word processing software, practice diskettes, printer ribbon, operating manual, a performance guide and written copy:

1. Power up the computer system.
2. Boot up program diskette.
3. Insert copy diskette.
4. Enter copy.
5. Edit copy.
6. Check spelling.
7. Save copy.
8. Merge files.
9. Set printer.
10. Print copy.

A checklist will be used to evaluate final performance.

CONTENT

1. Orientation
   a. Purpose of the course
   b. Overview
   c. Schedule
2. Using PC-compatible Computer System
3. Using Superwrite Word Processing System
4. Using Letter Quality Printer
5. Evaluation

INSTRUCTIONAL RESOURCES

(one per trainee)

1. XYZ Computers
2. ABC Printers
3. Superwrite Word Processing Program
4. Written Copy for Practice
5. Diskette Containing Copy for Editing
6. Blank Diskette
7. Operating Manual
8. Performance Guide

COURSE ORIENTATION

1. Welcome trainees to course.
2. Introduce yourself to class.
3. Allow trainees to introduce themselves.
4. Explain purpose of the course.
5. Summarize content of the course.
6. Give an overview of how the course will be conducted.
7. Announce necessary schedules.

TASK: POWER UP THE COMPUTER SYSTEM

INTRODUCTION

1. Explain that first step is to power up the system
   a. Point out the power switches.
   b. Emphasize importance of following a sequence.
   c. Explain safety features.
   d. Emphasize importance of turning off system when not in use.

EXPLANATION/DEMONSTRATION

2. Referring trainees to the systems facing them:
   a. Point out the electrical outlets and show how to make sure system components are properly connected.
   b. Referring trainees to power switches on system, demonstrate how to turn on:
      (1) Computer
      (2) Monitor
      (3) Printer

APPLICATION/PERFORMANCE

3. Have each trainee:
   a. Check power sources.
   b. Turn on computer.
   c. Turn on monitor.
   d. Turn on printer.

EVALUATION

4. Based on observation of above performance, point out any mistakes and emphasize the correct steps. Training will continue in this format for each task until trainees are ready for the final evaluation.

FINAL EVALUATION

As a final check of all objectives, give each trainee:

- Access to system
- Software for Superwrite Word Processing
- Diskette for saving copy
- Editing instructions for stored copy
- A performance guide
- Written copy

Then, have each trainee to use the Superwrite Word Processing system to enter copy, save copy, edit copy and merge files. Evaluate each with the checklist.

Chapter 6
DEVELOPING A DEVICE TO SUSTAIN PERFORMANCE

Until trainees have had time to become completely proficient in performing the tasks, they will benefit greatly from a performance guide, a device designed to sustain performance. This chapter reviews the performance guide and provides an example:

Purposes of Performance Guides

A performance guide serves these important purposes:

1. It serves as a constant reminder of the steps of the task or procedure.
2. It can provide instant references in case of forgetting.
3. It can assist the worker in a self-evaluation.
4. It can provide continuing reinforcement.
5. It can build worker confidence.

A good performance guide enhances effective performance.

Benefits of a Performance Guide

Three important benefits are derived from the use of a good performance guide.

1. Serious mistakes can be avoided.
2. Less supervision is required.
3. Work quality in general is enhanced.

Preparing the Performance Guide

Generally, a performance guide is prepared as follows:

1. Organize the guide into the job sequence.
2. Write each step as a brief performance direction. DO NOT clutter it with details.
3. When necessary, cite readily available references for specific directions should they be necessary.

On the next page is a sample performance guide.

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PERFORMANCE GUIDE
USING THE
SUPERWRITE WORD PROCESSING SYSTEM

This guide contains the major steps required to use the Superwrite Word Processing System. References are to paragraphs in the Superwrite Manual and Printer Manual.

1. Power up the system: computer, monitor, printer.

2. Boot up word processing program (3-1).

3. Remove program diskette and insert copy diskette.

4. Enter copy (pp. 4-1).

5. Edit copy.
   - Strike over (4-2)
   - Delete (4-2)
   - Insert (4-3)
   - Format (4-4)

6. Check spelling.
   - Select menu (5-1)
   - Load spelling program (5-2)
   - Operate program (5-3)

7. Save copy (5-4).

8. Merge files (5-5).

9. Set printer (2-3, Printer Manual).

10. Print copy (2-4, Printer Manual).

APPENDIX A

A PERFORMANCE GUIDE FOR SHORT-TERM TRAINING DEVELOPMENT

STEP 1 - Determine Training Requirements

1-1. Describe the potential trainees.
- Qualifications
- Background
- Prerequisites

1-2. Determine and specify needs for performance change or improvement.
- New equipment
- Substandard performance
- New processes
- Policy changes
- New product/services

1-3. Identify the competencies and tasks for training.
- Competencies to be developed
- Problem areas to be dealt with
- Subjects/knowledge to be imparted
- Estimate length of training

1-4. Identify required major resources.
- Facilities
- Training stations
- Equipment for training
- Instructional support equipment

STEP 2 - Specify Training Objectives

2-1. State desired behavior.
- Active verbs
- Overt, measurable behavior

2-2. Describe conditions of performance.
- Tools, equipment
- Environment
- Job aids
- Supervision

2-3. Specify standards of acceptable performance.
- Degree of accuracy
- Time limits
- Percentage of errors
- Degree of supervision
- Check list
- Operation of equipment

STEP 3 -Develop a Performance Evaluation System

3-1. Prepare an evaluation device.
- Product evaluation
- Process evaluation

3-2. Develop a competency profile.
- Training tasks
- Achievement dates
- Signature spaces

3.3. Prepare a document of certification.

STEP 4 - Develop Training Plan

4-1. Outline and sequence content.
- Organize:
  - Manageable segments
  - Logical progression
- Sequence by one of following:
  - Simple to complex
  - Known to unknown
  - Logical
  - Job order

4-2. Plan for instructional resources.
- Actual equipment
- Models
- Visuals
- Printed materials
- Audio visuals

4-3. Plan for interactive training.
- Orientation
- Introduction
- Explanation/Demonstration
- Application/Performance
- Evaluation

STEP 5 - Develop a Device to Sustain Performance

For each task or operation:

5-1. Organize performance steps into job sequence.

5-2. Write brief instructions for performance steps.

5-3. Include any necessary references.

APPENDIX B

CONDUCTING SHORT-TERM INTERACTIVE TRAINING

Introduction

Most short-term training courses are to be conducted as interactive instruction. This is generally true whether the course is a sophisticated package consisting of video discs, computers and work books or a simple training room with a teacher, chalk board, the equipment or product and a few hand-outs. If designed and conducted properly, each program should follow some basic principles of interactive instruction. Although those principles appear under different headings and titles, they are presented here as steps or parts of a training segment. Usually centered around one task, operation, project or assignment at a time, each of the segments should contain an introduction, explanation and demonstration, application or practice and the evaluation or reinforcement. Such a segment may be as short as 15 minutes or as long as several hours.

This information packet, based on those four steps, will include some general information on preparation, orientation, some pointers, and then specific suggestions for each of the four parts.

Preparing to Train

Here are some suggestions on what to do to get ready to conduct the training.

1. Review the training description so you will be aware of who the trainees are, why the course is being conducted, what it includes, and the major resources required.
2. Prior to the starting day, visit the facility to make sure the room, chairs, equipment, and other items are on hand and in good condition and ready to be used for training.
3. Review the training plan to become familiar with objectives, content and resources.
4. Prior to beginning of class, make sure all resources are ready and in place.
5. Also, prior to beginning of class, take your training plan and "dry run" some of the demonstrations you will be required to make.
6. Be in the classroom a few minutes before starting time.

Some Points to Remember

There are some general points to keep in mind throughout your conduct of the training.

1. Admit to yourself that you are nervous; then forget about it. Being nervous the first time you teach is normal.
2. If you think you lack confidence, remember two things:

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a. You were selected on your ability to accept challenges and to do a good job.

b. The trainees, as a general rule, will be cooperative and supportive. REMEMBER: They will be depending on you to meet their training needs.

3. Talk TO, not AT the participants. As you speak, look around and make eye contact with as many of them as possible.
4. Do NOT talk to your chalkboard and flip charts.
5. Resist the urge to get in a hurry. Take your time. If you have to pause to think, look at your plan: the main purpose of the plan is to remind you of what to do.
6. DON'T feel intimidated when someone asks a question. Do your best to answer it. If you don't know, say so. Being honest with the class is far more effective than trying to cover up.
7. If you ask a question and call on one person to answer it, ask the question, pause, then ask the person to answer it.
8. When a wrong answer is given to a question, be diplomatic. Say something like, "Thank you, John. That is true in some cases. But is it completely true in this case?"
9. When a trainee asks a question, repeat it so all can hear and understand it.
10. Don't allow one or two persons to take over and dominate the discussions.
11. Resist the temptation to throw in lots of trivia and short cuts. Remember: If someone asks for the time of day, you don't have to explain how a watch works.
12. Above all, stick to the training plan.

Conducting the Orientation

Let's suppose the time has come for your training to begin and you are standing before the group. The first thing you need to do is to provide an orientation. Here are some guidelines for what to do, usually in this order.

1. Welcome the trainees to the session.
2. Introduce yourself.
3. Have trainees introduce themselves if necessary. You might at this time have each prepare a simple name plate and place it before them.
4. Explain purpose of the course and give a brief overview.
5. Explain, in general terms, the objectives of the course.
6. Explain briefly how the course will be conducted.
7. Announce any schedules such as breaks, lunch, etc.
8. Answer any questions.
9. Have each participant sign the attendance roster if required.

As the Training Begins

Now that the course has started with the orientation, take each objective, project or assignment and develop it as follows:

Introduction

In the introduction, you should get the trainee ready to learn. Three

steps that are effective in doing that are as follows:

1. Provide a transition if necessary. "The first thing we shall ..."
2. State the importance of the objective and explain why participants should be able to do it. "You probably have several telephone numbers that you call frequently. If you had them programmed into your phone, you could save valuable time."
3. Give a brief overview of how the objective will be accomplished. "I shall explain and demonstrate .... you will practice.... then we shall check your programming."

Explanation/Demonstration

In this phase you start the learning cycle by telling and showing.

1. Referring to your training aids or the actual equipment, explain the procedure. Take your time; don't rush.
2. Next, explain each step as you demonstrate it. Again, take your time so that all participants can hear and see. Answer any questions that arise. Point out any safety precautions.

Application/Performance

Here the trainees take what they have heard and seen and apply it in a learn-by-doing activity.

1. Now have trainees practice the steps as you talk them through the procedure.
2. Have them practice two or three times if necessary.
3. Referring to the training aids, have trainees perform on their own until you are satisfied they have mastered the procedure.

Evaluation/Reinforcement

When practice and performance are finished:

1. Give a positive assessment of the performance.
2. If errors were made, treat them as needs for improvement rather than mistakes.
3. Summarize main steps in terms of "what we have learned to do"; reemphasize any problem areas.

Continue in the same order for the next objective, project or assignment.

When It's Finally Over

At the end of your day, you will probably feel you have had the most demanding day of your life. But there are some rewards to make you feel better.

1. Most of the trainees will tell you sincerely that you did a fine job.
2. Your supervisor, if present, will probably tell you the same thing.
3. As you gather up materials and box up equipment, you will think of the mistakes you made, but don't dwell on them. Make mental notes to avoid them next time. Those mistakes will soon be forgotten, but the contribution you have made toward improving peoples' skills will never be forgotten. Remind yourself that because of your efforts, several people are now more capable, more proficient, more knowledgeable.

You did it!